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FOUNDED BY THE LATE Dr. U. RAMA RAU

A JOURNAL DEVOTED TO HEALTHFUL LIVING

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What's New in the News

Non-Inflammable Nighties for Children

Again and again one hears of accidents among children who sustain deadly burns through their nighties catching fire.

Dr. Patrick Clarkson, of Guy's Hospital, London, is of the opinion that children—both boys *and* girls—should wear pyjamas as these are much less apt to catch fire when their wearers stand in front of an open fire.

Some mothers, however, may dislike to see their little daughters robbed of the feminine touch.........A Manchester firm has now come to the rescue of the nightie-fans by producing a material that is virtually non-inflammable.

A nightie made of the new winceyette-type fabric will not burn. "It is subjected to a lot of heat," Mr. Clifford Franks, of the Leeds College of Technology, explained recently, "it insulates the body and stops it from being burned or blistered."—(*World Digest*, Sep. 1956).

Atoms in the Kitchen

The United States Army has announced plans for the atomic sterilization of food which might remove the fear of a world shortage. Plans for the construction of a pilot factory in which food would be "cooked" in an atomic pile—or irradiated, as the engineers call it—have been outlined by the Deputy Quartermaster General, Major General Alfred Denniston. He said that if the project is successful, it may make it possible to distribute food to hungry people in countries which lack refrigeration.

General Denniston said that the pilot factory would be built in co-operation with the U.S. Atomic Energy Commission. It is expected to be in operation by October, 1958, with a peak capacity of 1,000 tons of processed food per month.

The General said that he personally has eaten atom-cooked steak which had been kept at room temperature for three months without ill effect.—(*World Digest*, Dec. 1956).

Potatoes Treated with Gamma Rays
Will they prolong human life ?

United States soldiers are eating their way through 35 tons of potatoes in the cause of science, according to Mr. A. V. Peterson, an American atomic research specialist.

The potatoes have been treated with radio-active gamma rays to prolong their life.

If the soldiers like the taste of them, and the potatoes retain their nutritive value, and don't go bad, then the experiment "might pave the way to one of the most important commercial applications of the peace-time atom", Mr. Peterson told an audience of French industrialists recently.

The result of the experiment is expected to be known in six months' time.—(*Daily Mail*, 20-1-1957).

Lighter Houses on the Way

A new building material which is claimed to have several advantages over other materials has been developed and perfected in Britain. It is called Dohmiculite, and is made from vermiculite mixed with sodium silicate. The material is pressed into the required shape—slab, block, sheet, or complete wall unit—and is then treated with liquid carbon dioxide which penetrates into the material, acting as a bonding agent.

The absence of cement, which is a feature of this and other new building materials, means a weight-saving of some 85% on a normal wall made of bricks. Water and drainage pipes and electrical circuits can be cast into the slab ready for connection on the site. This not only does away with unsightly pipes and wiring, but protects the water pipes from freezing in the winter.—(*Science News*).

Literacy Essential for Voters in U.S.A.

Illiterates are no longer admitted to the polling booths, in U.S.A. Before they make their "X", Americans who have never voted before will have to prove that they know their ABC at this year's election, by passing a preliminary literacy test. Both native-born and naturalized citizens must undergo the test.—(*Popular Votes*).

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By

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JUVENILE DELINQUENCY AND HORROR COMICS

JUVENILE delinquency has been on the increase in recent years all over the world. Indiscipline, defiance of authority, unhealthy habits, mischievous propensities and self-deception have become rampant amongst the teenagers and adolescents. Parental control is resented and school discipline is defied. Many of the modern cinemas, theatricals, and certain other undesirable diversions are exerting a baneful influence on the minds of the youngsters in the impressionable period of their lives. "Horror comics" exploiting crime, violence and sex are playing havoc among children and young persons. These are indeed alien to India's culture.

Though horror comics have not yet laid their roots deep in our soil, sufficient damage has been done to warrant suitable notice being taken by the Union Government during the last 2 years. The Government of India in 1955 banned the import of these poisonous publications into India by an act of legislature. It is not unlikely that ill-advised profiteers who made enormous profits out of this nefarious trade have been busy circumventing this legislation by devious devices. In August 1955, the Central Government introduced a bill in the Lok Sabha entitled, "The Young Persons (Harmful Publications) Bill" prohibiting the production of such literature within the country as it was abundantly clear, as the Home Minister PANDIT GOVIND VALLABH PANT stated later in the Lok Sabha in November 1956, that "the publication of Horror Comics was particularly reprehensible as they were meant for the use of children and young persons

whose susceptibilities at that age made them easy victims to the influences which were borne upon them by horror comics and *literature of that type.*" It took about 15 months however, for the Bill to be adopted by Parliament *i.e.*, in November '56.

There can be no two opinions on the urgency and need for such a measure which has come not a day too soon. The morbid Horror Comics and many little episodes in modern cinemas both foreign and indigenous, delight the young minds because they make crime pleasing and the criminal a hero, and they also depict lewd and sensual scenes in a way that would appeal to the weak side of human nature.

Reasonable doubts have been expressed, whether the Bill by itself will have the desired effect of weaning the adolescent mind from the corrupting influences of horror comics. While it is quite proper and necessary that harmful reading material should be prohibited, one would like to stress that suitable interesting and healthy literature should be made available to these juveniles, in the absence of which the cravings thus far insidiously instilled in their minds will seek surreptitious methods of satisfaction.

Our Indian languages are all no doubt rich in wealth of ideas, diction, melody and morality but they do not possess that absorbing feature which appeals directly to the heart of the child or the young person whom the legislation seeks to protect. Take for instance, *'Alice in Wonderland'* that remarkable gem of English literature; it has delighted and captivated generations of school boys as well as profound philosophers. The interesting and hilarious *'Tales of Tenalirama'* in Tamil and Telugu were read by the young and old of a previous generation with gusto; whether they are even extant today or will satisfy the corrupted taste of the modern boy or girl is doubtful. Anyway PANDIT PANT was not unaware of the paucity of suitable literature for the children and adolescents; so he suggested that the scriptures, epics, and historical anecdotes of ancient and medieval India should be largely drawn upon. This is indeed a very good proposal but it will be a lengthy process and literature cannot be written to order or to a set time-table. The increasing interest and encouragement given to the writers of vernacular books should be directed to the production, at least in part, of "Healthy and *not* Horror comics for the young." Similarly our Cinema producers and directors should be compelled to produce special comic plays and programmes for the teenagers in which morals, religious tenets and healthy codes of conduct and behaviour, would figure prominently and intelligently.

The function of all worship is to imbue the devotee with the divine essence of truth—(Heinrich Zimmer).

GIVE SELF-REGENERATION A CHANCE

Dr. MILTON POWELL,
(Member, British Federation of Psychologists)

It is surprising to find that so many people are afraid of germs and afraid of death. There are, of course, various reasons that explain these fears.

Banishing morbid fears.—One obvious way of overcoming these distressing fears is to become as physically fit as possible.

Another thing that is needed is to understand the source of morbid fears. Loss of friendship and love, or isolation from social life, tends to increase morbid brooding. When external objects and events no longer create interest, then attention is wrongly focused upon oneself and one's bodily sensations.

In children, the morbid, compulsive fear of death may sometimes be traced to a too sudden introductiou to the fact of death, or to fear of eternal punishment, or to acute illness, or to identifying themselves with a school-companion who has died. In adults, it is more likely to be simply an exaggerated fear of annihilation and the threatened loss of all the enjoyments which are clung to, by one's precious ego. Repressed guilt may lie at the root of a morbid fear to death: "The soul that sinneth, it shall surely die," obsesses the guilty conscience, and is unable to visualize forgiveness and redemption. All these fears are best dealt with by frank ventilation, rather than by efforts to suppress or "forget" them.

Fear of germs.—The fear of germs is based on a wrong idea about bacteria. Most kinds are actually helpful to man and play an essential and vital part in Nature's processes. Relatively, only a few kinds are thought to be harmful to man, and then only if the body's defences have been lowered by wrong habits of living.

Effective way to ban fears.—A very effective way of overcoming a morbid fear of germs is for the sufferer to become thoroughly acquainted with the various defences the body puts up against germs alleged to be harmful. There are at least seven lines of defence to be found in human blood. There are phagocytes which ingest and digest foreign germs. Opsonins in the blood help to make germs more acceptable to the devouring phagocytes. Precipitins combine protective antibodies in the blood with foreign substances, and throw down a neutral precipitate. Agglutinins clump or glue microbes together so as to localize and render them inactive. There are natural antitoxins in the circulating blood which are able to counteract the toxins formed by germs. Bactericidin substances are death to bacteria. And bacterolysins have a bacteria-splitting function. A high bodily temperature should not terrify us, for it actually facilitates the production of these defence bodies and protective substances. These facts, as mere intellectual knowledge, may not help much, but if they are pondered over they will give us a greater feeling of security,

of the *self-protective powers which the body itself provides.*

The wisdom of the body.—The innate intelligence of the mind-body organism has many other ways of ensuring survival. Here, we list just a few.

Compensation :—The writer knows a man aged over 70 who is still living a vigorous life, although he lost a lung 25 years ago; another elderly man, who is in good health, has only one kidney. The sound organ must obviously have been strengthened by Nature to carry on the work of the pair.

Adaptation :—When there is too great heat in fever, or when living in a tropical climate, sweating reduces the excess heat. Conversely, the skin contracts when subjected to the effects of cold, thus preventing evaporation and radiation of heat.

Elimination :—Vomiting and diarrhœa are examples of a prompt, defensive, expulsive reaction to noxious substances.

Conservation :—Think of the heart muscle, going rhythmically to work, day and night, for 70 years or more. But for half of that time, the heart muscle is resting in between beats.

Adjustment :—In the child, the long bones grow and grow, but an adjustment-mechanism determines when they shall stop growing. It also determines when puberty and the menopause shall begin.

Reflex action :—When excessive light is thrown to the eye the pupil contracts so as to admit only the amount of light that can be tolerated.

Regulation :—Appetite is regulated by taking away desire for food when it is not required. When natural living is practised, the bowels need no artificial "regulation", for they are *self*-regulating.

Protection :—The body has an immensely elaborate sensory and motor system that provides automatic protection, as in the quick removal of the hand from a hot surface.

Co-operation :—There is a wonderful, harmonious co-operation and co-ordination of all parts of the nervous system. This intricate, human automation is far in advance of the most highly developed form of mechanical automation invented by man.

Repair :—With a severe cut, clotting helps to prevent blood-loss. Lowered blood-pressure reduces flow. The spleen contracts, compensating for loss of red corpuscles. New cells are built, new skin is formed—a complete self-repair service is promptly put into service. A fractured bone is mended so well that, if a similar accident is sustained, the bone will fracture at some other place.

Chemical balance :—The body has self-regulating mechanisms for maintaining, at normal levels, blood-sugar, salts, proteins, vitamins, oxygen and other indispensable chemical elements.

Several pages can be written on the wonders of the self-preservative powers of the human body. And yet there are people who think of their body as an enemy, a trap, a burden, a hindrance, a clumsy contraption for inflicting human pain and suffering. How very wrong they are! They must know, really, that this is a distorted and unfair view of Nature. They need only to recall to mind the magnificent bodies and powers of our athletes to realize that a properly trained body is a noble, beautiful and marvellous creation. Nor does the body call for the high degree of discipline and hard work required for competitive sport, in order to maintain good health, lasting on into old age. Our *Life Force* never ceases to try to extricate people from their physiological messes and scrapes and disasters.

The flesh is *not* heir to ills, for health is our heritage and our destiny, when we attend to the simple laws of natural living. "Accuse not Nature; She hath done her part, do thou but thine." —(*Health for All*, November 1956).

An incredibly efficient and complex system of communications that dwarfs any made by man is our nervous system.

LET US SEE HOW OUR NERVOUS SYSTEM WORKS

J. D. RATCLIFF

DAY and night millions of messages pour through its billions of cells, telling the heart when to beat, limbs when to move, lungs when to draw in air. But for the links which it provides, our bodies would be mere masses of chaotic individual cells, each cell going its own independent way.

Consider the sensory nerves—which tell us whether a cake is tasty, a piece of music pleasing, a view inspiring.

The tongue has 3,000 taste buds, each with its nerve connection to the brain. No one knows exactly how these taste-bud receptors work, but present-day thinking suggests that particles of food fit into them like light plugs into sockets, closing circuits and sending electrical impulses to the brain. The brain interprets them, then arrives at a judgement : the potatoes need salt, the orange is sour, the cake is delicious.

The ears have 100,000 auditory cells. Minute nerve ends in the inner ear pick up a particular sound frequency and start vibrating. A current is generated. It may be so feeble that it has to be amplified thousands of times before it can be detected ; fed into the brain, it is identified as a musical note. Or a medley of sounds may enter at the same time, to be instantly recognized as a friend's voice, the bark of a dog, a train whistle or the honking of a motor horn. We hear *with* our ears but *in* the brain.

Each eye of ours has 130 million light receptors sending group impressions to the brain. We see lovely things *with* our eyes, but it is the brain that gives us a feeling of joy and appreciation. The eye nerves can play strange tricks on us. We bump our head against a wall in a dark room and there is a blinding flash of light—we "see stars.". It happens thus :—the bump stimulates the optic nerve to send electrical impulses which the brain interprets as a flash of light.

Our skin contains a huge network of receptors. If a hot object touches our skin, some of the 30,000 "heat spots" will give warning of danger. The skin has 250,000 cold receptors, and something like half a million tactile spots. Step under a cold shower and cold receptors flood the brain with messages : the body starts shivering, the skin arteries dilate, a new blood-supply hurries to provide more heat. If the room is too hot, heat receptors notify the brain, and three million sweat glands start a flow of cooling perspiration.

The brain pays little attention to messages from only a few receptors. A hot needle can be pressed against the skin with no great discomfort. But press an

equally hot iron against it and a general alarm goes out. *That's why it's dangerous to test a baby's bath-water with only your finger-tips.* The water may not be too hot for your fingers, but can be highly uncomfortable when receptors all over the baby's body get into action.

The main function of nerves is to prod muscles into action; they also have a mysterious ability to dampen or inhibit motion. Otherwise when we move a leg to take a step it might continue to rise as if we were kicking a football. During sleep, apparently, this dampening effect becomes dominant, pervading the entire brain. This accounts for the occasional paralysis of terror in dreams: we want to cry out but cannot; we want to run, but our legs refuse to move.

Nerve cells have certain special characteristics. Most body cells reproduce themselves by simple division: a cut fingertip heals itself; hair, fingernails and toenails push themselves out constantly as cell division progresses. Nerve cells follow no such pattern. We get our lifetime's supply at birth, and once a nerve cell is destroyed it is destroyed for ever; subsidiary nerve channels may however establish pathways round the damaged cell.

There are several main divisions of the nervous system. The autonomic branch governs such "automatic" functions as digestion, breathing and the heart-beat. It is divided into the sympathetic system, which stimulates activity, and the para-sympathetic, which retards it. If the body were entirely under the control of the sympathetic system, the heart, for example, would race itself to death. If entirely under the para-sympathetic, the heart would stop. The two must be in perfect co-ordination. When quick energy is needed in times of stress, the sympathetic gains the ascendancy, speeding up heart and lung activity. In sleep, the para-sympathetic lays a calming hand on all bodily activity.

Present evidence indicates that these two delicately balanced systems are small chemical-manufacturing plants. The para-sympathetic system produces an incredibly potent drug called *acetylcholine.* The sympathetic system produces an equally potent drug, *adrenalin.*

We are kept alive, breathing, by infinitesimal bits of these two chemicals, which, immediately they have served their purpose, are destroyed. All this awesome, extraordinarily complex activity takes place in a "twinkling—perhaps a thousandth—of a second every time our heart beats, every time our eyelids blink.

Motor nerves—the nerves which govern such voluntary actions as walking, talking, chewing—appear to work in another manner. When the brain sends out a message ordering an arm to be lifted, a tiny electric "shiver" starts out from the brain through motor nerves. The impulse is so small that it would never reach the arm but for the fact that every few centimetres

along the nerve fibre there is a "relay station" which recharges the fading current, so that the impulse arrives at its destination with exactly the same value as it had when it left the brain. This elaborate sequence also takes place in a twinkling: messages are transmitted through nerves at over 200 miles per hour.

People sometimes complain of "frayed" nerves. Actually, nerves aren't responsible for feelings of tension. Emotional conflicts in the mind are the cause. A troubled brain may send out electrical impulses which result in too large a secretion of stomach acids, leading to ulcers. Or it may order the tightening of muscles in blood-vessel walls, which leads to high blood-pressure. In these situations the nerves, like telephone wires carrying bad news, are simply acting as a communication system.

Occasionally, however, nerves *do* get out of order. One of the causes of hiccups, for example, is irritation of the respiratory nerves. Shingles, an acute inflammatory skin disease, is the result of irritation or infection of the sensory nerves.

As research workers have gathered more and more facts about the nervous system, doctors and surgeons have put this new knowledge to work. Nerve repair is perhaps the most exacting of all surgical arts. In accidents, nerves are often severed and have to be rejoined if a hand, arm or leg is again to be useful. The nerves to be sewn may be no larger than a hair and must be sewn with still finer suture materials. Working deftly with a magnifying glass and filamentous silk or linen, skilled surgeons are often able to achieve this job.

When injury is so extensive that nerve ends cannot be pulled together, the answer is a graft, borrowed either from the patient's body or from a "bank." Such grafts do not grow; they merely from a bed on which the nerve fibres regenerate themselves. One of surgery's most rewarding sights is to see life return gradually, over a period of months, to a limb thus repaired.

Research workers still face a host of unanswered questions about nerves. They are unable, for instance, to explain what a tickle is. Nor do they clearly understand some of the remarkable reflexes with which we are born: how the newborn baby puckers his lips, ready to feed; or how he curls his fingers to grasp objects.

When we reach a complete understanding of the nervous system, we shall be close to understanding a supreme riddle of the universe: how that mass of cells known as man, manages to behave like a human being.

(Condensed from *Today's Health*).

Smoothness of Life

For one who is devoid of real insight and has not properly and constantly yoked-and-tamed his mind, the sense-forces become unmanageable like the wicked horses of a charioteer.—(*Katha Upanishad and Plato's "Phaedrus"*).

THE FALLOUT PROBLEM

B. J. DUFFY, Jr., M.D., Washington, D.C*

RADIOACTIVE FALLOUT is the radioactivity which falls out of the atmosphere after explosion of a nuclear weapon. The amount of fallout is determined by the nature and amount of nuclear material used, the conditions of explosion and such meteorological factors as wind and rainfall.

The fallout problem, according to Dunning, resolves itself into the following questions:

(1) What are the radiation problems associated with nuclear weapon testing?

(2) What data are available concerning fallout from the past tests and what might this radiation amount to, if the tests continue?

(3) Finally, what do these data mean? How serious are the risks of residual radiation and radioactive fallout?

When a nuclear weapon is detonated, instantaneous gamma rays are released, of concern for about a mile for the nominal bomb and out to a few miles for high-yield weapons. In contrast, the ensuing radioactive fallout may deposit significant radioactivity more than 300 miles downwind from high-yield weapons. This secondary material emits gamma-rays similar to the prompt radiation but of less quantum energy. It also contains the short range beta-rays, of particular significance when the radioactive fallout makes direct and sustained contact with the skin, producing "beta-ray burns."

Most of the fallout from the nominal atomic bomb is regional, but the high-yield weapons deposit only one-third or so of their fallout locally. Considerable, perhaps one-half, of the radioactivity finds its way into the stratosphere and it may remain there for a prolonged period during which it may circle the earth several times and settle in a minimal, generally even and measurable fashion.

So much for the problem—now what do we know as a result of tests to date?

It might be in order to present a few standards with which to measure the effects of radiation.

1. A normal chest X-ray will deliver about 1/10 of a roentgen to the chest. Combined X-ray and fluoroscopic procedures such as angio-cardiography or cardiac catheterization may deliver 200 or more roentgens to a localized area of the body.

2. In contrast, 25 roentgens of gamma radiation delivered in a short time (day or less) over the *whole body* will result in definite although transitory changes in the blood; about 100 roentgens are required for some persons to show radiation sickness; about 400 roentgens of whole body radiation may be lethal to half of the exposed persons.

3. Finally, about 10 roentgens are normally received in a lifetime from cosmic rays and from naturally occurring radioactivity in the air, water and soil.

Following the March 1954

thermonuclear or hydrogen bomb explosion at the Pacific Proving Ground, an unexpected shift of winds caused a heavy radiation fallout over some of the Marshall Islands.

The highest radiation exposure to any of the island inhabitants was about 175 roentgens. Most of these people gave evidence of radiation sickness. There have been no deaths or, as yet, untoward sequelæ. This group is being carefully followed, with particular emphasis on hæmatologic studies.

All X-rays are dangerous. Fallout is no exception. The bomb test programme involves a calculated risk. I agree with Furth, and Tullis, (Carcinogenesis by Radioactive Substances, *Cancer Research 16*: 5 Jan. 1956), that "there is a vast difference between a carefully prepared programme for exploding nuclear devices at places and times chosen to minimize possible injury to man, and an all-out war where both sides use such devices in the most damaging ways possible......if the first alternative helps to prevent the second, we must accept the first, with the uncertainty of some information not yet known on possible radiation injuries to a small number of people."—(*Hawaii Medical Journal*, September-October 1956).

LADIES and GENTLEMEN (*BOY or GIRL?*)

THE sex of an individual is second in importance only to the fact that he or she was born to exist at all. From the moment of birth, sex governs the course of physical development, function, thought, activity and behaviour. In all of society, one's sex is the attribute first noticed by other people. This is true everywhere—whether the stranger arrives by parachute among an isolated tribe of savages, by formal entrance into a crowded ballroom, or by the hands of an obstetrician into a hospital delivery room.

The vital importance of sex accounts for one of the most common speculations on the outcome of any pregnancy—*will it be a boy or a girl?*

From antiquity to modern times, attempts to foretell the sex of an unborn child have involved a great variety of criteria—most of which have been based on folklore and superstition—*e.g.*, whether the baby is carried "all at the back" or "all at the front," whether a needle suspended over the abdomen rotates clockwise or withershins, at what phase of the menstrual cycle conception occurred, at what stage of gestation movements were first detected, or the length or type of labour and so on.

A few criteria for prenatal sex determination have enjoyed a somewhat more scientific rationale—*e.g.*, the fœtal heart-rate and chemical analysis of the maternal saliva.

None of the criteria have stood the test of time. Thus far expectant parents and other interested parties have been obliged to await delivery—and see.—(*International Medical Digest*).

Magic Water on the Rhine

Every man or woman has probably heard of *Eau de Cologne.* Yet few people know the fascinating history that lies behind its manufacture, and that genuine *Eau de Cologne* is made by two firms only, one of which, the famous "*4711,*" is the best known outside Germany.

Had it not been for an Italian distiller named Feminis, who settled in the prosperous Rhineland city 250 years ago, *Eau de Cologne* might never have been invented. From his home in Santa Maria Maggiore, Feminis brought the secret formula of a fragrant and aromatic compound which he began to sell in liquid form for internal use only. It was at first called "*Aqua Mirabilis*" or "*Eau admirable,*" and Feminis received a certificate from Cologne university stating that his "Magic Water did much good, particularly in cases of cold and phlegmatic temperaments." Later its users renamed it *Eau de Cologne,* to distinguish it from other "miraculous" remedies on the market.

The history of the modern company dates from about 1790. Franz Gereon Maria Farina, a Carthusian monk, found himself forced out into the world by the dissolution of the monasteries. Presumably a descendant of Feminis, he held the magic formula, and he persuaded a friend of his, one Wilhelm Muelhens, to let him produce the secret compound in his cellar. Two years later, Farina presented Muelhens with the formula of his compound as a wedding gift and token of gratitude for his kindness. The secret has been closely guarded ever since by the Muelhens family.

The fortunes of the firm are closely connected with the history of Cologne. When the French Revolutionary Forces occupied the city in 1794, the town commander ordered that every house in the town be numbered consecutively, from one end of the city to the other. Wilhelm Mulhens's house in the Glockenstrasse became No. *4711,* and he used this number to distinguish his product from the products of rival firms.

At one time during the last century, there were some 180 families who claimed to make the compound, but nowadays there is only one other firm, "Maria Farina," that makes *Eau de Cologne.* When Germany came under the rule of Napoleon a decree was issued prohibiting the "advertising and selling of secret medicines": henceforth no remedy was to be sold without the publication of details of all the ingredients it contained.

Rather than part with their secret, the makers of *Eau de Cologne* decided to sell their product as a toilet water in future. The formula had to be considerably altered, for although the liquid was fit for drinking, it had to be "doubly purified" before it could be used as a toilet water!

The present factory has been completely rebuilt since World

War II, and is well worth visiting. In the basement there are rows and rows of large oak barrels that look as though they might contain beer. Here the compound is left to mature with the alcohol, a process that takes several months.

Musk, and the essence of roses, jasmine, orange flower, orange stem, and lemon—all very pungent—are kept in large, glass-stoppered bottles. Not far from the store-room is the private laboratory, a small windowless room equipped with a strong-room door. Here the head of the family comes to mix the "secret potion."

The present holder of the closely-guarded secret is Frau Muelhens, an old lady of 75. She still visits the factory two to three times a week, locking herself up in the laboratory. Here she mixes the essences in their right proportions, and the resulting liquid then comes flowing through a thin copper pipe on the first lap of its long journey round the world.—(*World Digest*, September 1956).

EAT TO LIVE AND BE HAPPY

Statistics show that many people are virtually eating their way into the grave. With astonishing unconcern for the nutritional value of what they eat, they afflict theirlong suffering stomachs with any and everything that appeals to the eye and the palate. "Plenty of what you fancy does you good" seems to be their sole dietetic criterion. Indiscretions, it is felt, can be easily corrected with pills and powders.

Years ago, a noted health specialist commented: "Nature delights in the most plain and simple food, and every animal except man follows her dictates. Man alone riots at large and ransacks the whole creation in quest of luxuries, to his own destruction. An elegant writer speaks thus of intemperance in diet: "For my part, when I behold a fashionable table set out in all its magnificence, I fancy that I see gout and dropsies, fevers and lethargies, with other innumerable distempters lying in ambuscadeamong the dishes."

"Grains, fruits, nuts and vegetables constitute the diet chosen for us by our Creator. Such foods, prepared in a simple and natural manner are most healthful and nourishing. They impart a strength, a power of endurance, and vigour of intellect, that are not afforded by complex and stimulating diets containing meat, tea, coffee etc........Nature affords an ample variety of healthful foods, and each person should choose from it the things that experience and sound judgement prove to be best suited to his own necessities.—(*Good Health, London*, Oct. 1956).

Pure consciousness or *vignyanam* resides in every being and like the butter in milk, it is to be churned constantly and brought to use.—(*Amritabindhu Upanishad, 20*).

EFFECT OF RACE, DIET, AND CLIMATE ON CARDIOVASCULAR DISEASES

JOHN B. LEVAN, M.D., Reading Pa.

CLIMATE has very minimal effect on the heart because of its rapid adaptability. Subjects exposed to a hot and humid climate will temporarily increase their blood-volumes and even their venous pressure, but quickly return both to normal. Likewise, those being transferred to a cold climate for a very brief time decrease their blood-volume, and rapidly return it to the previous base-line. Diseased and less elastic cardiovascular systems may more frequently develop complications like coronary thrombosis during extremely hot spells, for the incidence is higher at those times. Formerly it was felt that rheumatic fever was more prevalent in the cold and damp portions of the world, but studies now show the incidence to be world-wide, and to be directly related to the prevalence of the streptococcus. In the 1930's Dr. Paul White took his large group of rheumatics to Florida one winter in order to avoid the bleak New England weather, hoping to show a lower incidence of reactivation of rheumatic infection. The experiment in climate was terminated and never repeated because of several deaths in the group from acute rheumatic fever while in the warm sunny South.

Race.—We are learning much about race and the heart. Statistics here, too, will need much revision and study. For instance Bays and Scrimshaw (*Circulation*, November, 1953) declared studies from all over the world show variable standards, poor cross section of population, and even discrepancies in their considerations of hypertension. The lower life-expectancy in many of these countries due to starvation, infection, and accident leads to a statistically younger group's being compared to the more advanced races with their much higher percentage of old persons.

All studies point to the tendency for Puerto Ricans, Guatemalans, Mexicans, Panamanians, South Africans, Eskimos, and Chinese to run lower mean blood pressure, and to have less atherosclerosis than other people.

Diet.—Some progress has been made during the last few years in regard to diet. After World War I there was evidence to indicate the depleted diet of the ravaged countries seemed to reduce the incidence of coronary atherosclerosis, while there was a return to the pre-war level soon after the diet of plenty was resumed. Again after World War II reports came out of Norway showing that during German occupation no dairy products, fowl, or fat were available. The incidence of coronary disease and atherosclerosis fell to a very low level at that time, only to return to its former level after the German withdrawal and the return of the dairy herds and fats to their owners. Incidentally, as in other statistics under similar circumstances, infections, especially tuber-

culosis, showed a tremendous increase during the period of inadequate diet.

New studies on a world-wide basis were initiated soon after these facts were recognized. Here again rose the point concerning the great difference in incidence of atherosclerosis on a world-wide basis that could not be attributed alone to race, climate, or geography. Nor could atherosclerosis and hypertension be based alone on the tempo of living and mental stress. It was seen that atherosclerosis seemed to be lower in these peoples with a diet low in cholesterol and neutral fat.

The Japanese on a native diet, in over 10,000 autopsies, were seen to have serious atherosclerosis in only 1·7% of cases. In those on an American type of diet. the incidence rose sharply.

The same findings were reported on the Bantus of South Africa with a diet of only 10% or less of the calories in fat.

Keys cited the greatly different diet between the people of Bologna and those of Naples, Italy, with the same difference in incidence of atherosclerosis.

Of the soliders killed in Korea between ages 18 and 26, 70% had a significant degree of coronary atherosclerosis ; and the diet in the U S. Army has 45% of its calories in fat. The Bostonian eats about 35% of his calories in fat and has a 12% coronary atherosclerosis rate, while in Minneapolis 45% of the calories are in fat with coronary sclerosis at autopsy in 26·5 per cent.

It would appear that man, in reaching his present higher stage of civilization, and the present luxury in diet–something he never attained in days gone by–has created a situation which his body chemistry has not developed a means of handling. He apparently cannot survive on this diet any better than he withstood the infection and stress, with malnutrition, that had been a constant problem through the ages.

It is important to mention here that very low fat diets, (below 15% of total calories), cause fatty degeneration of kidneys and liver in animals. Thus, one may carry a restricted diet too far. Moderation at this time is therefore, advised.

Dr. Paul White summarized the World Congress on atherosclerosis, saying "We are in an epidemic of coronary artery disease which is sweeping over the face of the earth and causing more deaths than any of the infectious epidemics, such as cholera or plague, known to the history of man ; this epidemic of coronary artery disease is the result of the attainments of civilization. This attainment of our civilization has been to have as rich a diet as possible and as little to do as possible !"

So until we know more about diet and body chemistry, we advise our patients moderation, neither restricting them too greatly nor allowing them to go on with excesses.

—(*Hawaii Medical Journal*, Sept.-Oct. 1956).

(To be continued)

HEALTH AND REAL BEAUTY

MILLIONS of pounds are expended every year by women in an endeavour to retain their youth and beauty!

Some of this vast expenditure comes from the purses of young girls who, no matter how pretty they may be, or how flawless their complexions, have been brought up to regard the use of *make-up as a ritual* which must be observed by all who aspire to smartness and sophistication.

But it is on the dressing-tables of the older women that the largest assortment of jars and bottles is to be found, and it is from them that the manufacturers of beauty-aids reap their richest harvest.

In the not-so-distant past, wrinkles and greying hair were accepted as a matter of course by our mothers and grandmothers, who, having done their duty by raising and caring for their children and looking after their husbands, were quite content to grow old with grace, charm and dignity, though the actual tally of years was kept a close secret.

Nowadays, however, this dear old lady is little more than a memory. To the modern woman, the process of ageing is entirely unpardonable, and when her own ministrations with creams and lotions have no effect, she turns increasingly to massage, electrical treatments, and even surgery to keep the tell-tale wrinkles at bay!

Alas! the ironical truth is that, although "ageing in looks" is largely avoidable, few women succeed in their attempts to retain a youthful appearance, because the methods they employ are the wrong ones.

Women—and men too, for that matter—can only succeed in keeping youthful when they recognize that *the secret lies in retaining a healthy body and an alert mind.* The best "beauty salon" in the world is the fruit and vegetable stall. *Green, leafy vegetables and luscious fruits can do more to promote lasting beauty than any amount of creams and powders.* Fresh air and physical exercise, of the right kind, are a thousand-fold better than mud-packs and "facials." And strong, flexible muscles are a better "foundation garment" than any corset.

Intelligence, wit and humour are attributes of the healthy mind, just as movement and poise are attributes of the healthy body. It is only through the cultivation of both, that real beauty may be attained—and retained.—(Stanley Lief, in *Health For All*, October 1956).

Do Thy Duty

Worship, charity and austerity purify our thoughts.......Give thought to nothing but the act, never to its fruits and let not thyself be seduced by inaction. For him who achieves inward detachment, neither good nor evil exists any longer here below......Consider pleasure and pain, wealth and poverty, victory and defeat as of equal worth. Prepare then for the combat. Acting thus, you will not become stained by guilt.—(*Bhagavad Geetha*).

COSMETICS and the SKIN

(Continued from p. 10, Jan. '57 issue of HEALTH)

III

Face powders.—A standard face powder has a powder such as zinc oxide or titanium dioxide for covering, talc for ease of spreading and 'slip', chalk or starch for absorbing sweat and sebum (prevents 'shiny nose'), and magnesium or zinc salts of fatty acid stearates for adhesion.

Ill-effects, *e.g.* pigmentation or dermatitis, are most rare and are usually due to added perfumes. Orris root famed as an allergic factor in asthma is now no longer usually employed, but preservatives may be added.

Perfumes, deodorants and depilatory preparations.—As already pointed out, *perfumes* are a common cause of sensitization dermatitis in all cosmetics. Localized areas of dermatitis behind the ears or acute swelling of the eyelids or face may suggest perfume as the offending agent. A patient developed an acute facial dermatitis from a spray of perfume squirted on to her coat as an advertisement in a shop. Essential oils in perfumes, such as oil of Bergamot, also cause sun-sensitivity. Pigmentation from this cause was first described by Freund in 1916, and was later termed *'berlocque'* by Rosenthal, to connote the necklace-like appearance of the streaks of pigmentation around the neck. All perfumes and *Eau Cologne* are 'suspect' in such cases. Bergamot oil is the perfume agent in violet, *Eau de Cologne* and Lily-of-the-valley scented soaps. Urticaria is described from inhalation of perfumes.

Deodorants for excessive sweating or disguising of odour are marketed as liquids, creams and powder, in sticks like shaving soap, or in polythene spray bottles. Most contain astringent aluminium salts, such as the sulphates, chlorides and phenol sulphonates. Formaldehyde, alcohol and tannins are also used.

Unpleasant odours, 'body odour', result from secondary bacterial action on fatty acids in secretions, and deodorants may contain zinc peroxide, hexamine, chloramine, chlorophyll, perfumes or more recently introduced bacterial inhibiting antiseptics and detergents. Aluminium salts themselves, formalin from hexamine products and antiseptics may all cause contact dermatitis, the apex of the axilla being affected, which differentiates it from contact dermatitis of the axillary areas due to dyes in clothes.

Unexplained irritation of the body may be due to bath salts. Jars of cold creams may become contaminated by nail polish and plastic scent or cream bottles may be the real sensitizers.

Body and face powders containing starch may allow mold or monilial growth, although preservatives are often added. Aspergillus infection of the body in this way has been reported. Face powders, creams and powder puffs as vectors of organisms

may cause persistence of staphylococci in furunculosis or pustular acne. Wives may develop allergy to their husbands' perfumed brilliantine, shaving cream or lotions, or their sisters' perfume. Men leading double lives face exposure when allergic to the other woman's lipstick!—(*The Practitioner*, May 1956).

SUCCESS IN LIFE—

LEARN TO BELIEVE IN YOURSELF

HAVE faith in your abilities! Without an humble, but reasonable confidence in your own powers, you cannot be successful or happy.

It is appalling to realize the number of pathetic people who are hampered and made miserable by the malady popularly called the *inferiority complex.* But you need not suffer from this. When proper steps are taken, it can be overcome.

After speaking to a convention of businessmen in a city auditorium, I was on the stage, greeting people when a man asked, "May I talk with you about a matter of desperate importance to me?"

I asked him to remain until the others had gone, then we went back-stage and sat down.

"I'm in this town to handle the most important business deal of my life," he explained. "If I succeed, it means everything to me. If I fail, I'm done for."

I suggested that he relax a little, that nothing was quite that final.

"I have a terrible disbelief in myself," he said dejectedly. "I just don't believe I can put it over. In fact," he lamented, "I'm just about sunk. Here I am, forty years old. Why is it that all my life I have been tormented by inferiority feelings, by lack of confidence, by self-doubt? I listened to you tonight as you talked about the power of positive thinking, and I want to ask how I can get some faith in myself."

I replied "it is important to discover why you have these feelings of 'no power' That requires analysis and will take time. But to pull you through this immediate problem, I shall give you a formula which will work if you use it":—

"As you walk down the street tonight, I suggest that you repeat certain words which I shall give you. Say them over several times after you get into bed. When you awaken tomorrow, repeat them three times before arising. On the way to your important appointment, say them three additional times. Do this with an attitude of faith and you will receive sufficient strength and ability to deal with this problem."

Following is the affirmation I gave him—*I can do all things through God who strengtheneth me.* He was unfamiliar with

these words, so I wrote them on a card and had him read them over aloud three times.

I watched him square his shoulders and walk out into the night. He seemed a pathetic figure, and yet the way he carried himself showed that faith was already at work in his mind.

Subsequently he reported that this simple formula "did wonders" for him and added, "It seems incredible that a few words from the scriptures could do so much for a person."

This man later had a study made of the reasons for his inferiority attitudes. They were cleared away by scientific counselling and by the application of religious faith. He was taught how to have faith, was given certain specific instructions to follow. Gradually he attained a strong, steady, reasonable confidence. His personality has taken on a positive, not negative, character so that he no longer repels success, but, on the contrary, draws it to him. He now has authentic confidence in his own powers.

There are various causes of inferiority feelings, and not a few stem from childhood. An executive consulted me about a young man whom he wished to advance in his company. "But," he explained, "he cannot be trusted with important secret information. I'm sorry, for otherwise I would make him my administrative assistant. He has all the other necessary qualifications, but he talks too much."

Upon analysis I found that he *"talked too much" simply because of an inferiority feeling.* To compensate for it he succumbed to the temptation of parading his knowledge. He associated with men who were rather well-to-do, all of whom had attended college and belonged to a fraternity. But this boy was reared in poverty, had not been a college man or fraternity member. Thus, he felt himself inferior to his associates.

To build himself up with his associates and to enhance his self-esteem, his subconscious mind, which always seeks to provide a compensatory mechanism, supplied him with a means by which to bolster up his ego.

When the employer became aware of the cause of this trait, he pointed out to the young man the opportunities in business to which his abilities could lead him. He also described how his inferiority feelings caused his unreliability in confidential matters. This self-knowledge, together with a sincere practising of the techniques of faith and prayer, made him a valuable asset to his company.—(*Coronet*).

Diet and Disease

Generally accepted is the idea that it is natural to die of disease. This, however, is not a right conclusion. Two out of every thousand people die simply of old age, and this number could be considerably increased by a return to natural dietary. Disease usually indicates wrong living, particularly wrong feeding—as is proved by dietary adjustment.—(*Nutrition*).

ANTIBIOTICS: THEN AND NOW

It took courage, in the early days of the discovery of antibiotics, to shake one's head in doubt over the enthusiastic predictions that heralded their advent. Our scepticism was based on the well-worn theme that "only Nature cures." Who would have thought, then, that we should one day read the following statement, in *The Lancet*, of May 26, 1956 ?

"Certainly it is time that we abandoned the naive ignorance which underlies the apparently common assumption that the best thing a doctor can do for a febrile or a potentially febrile patient is to 'hit his bugs hard.' Most of these miscalled creatures are harmless when they are left, among plenty of others of their kind, to the rich, natural antibacterial resources of the human body. If we were not so often and so uncritically anxious to do a bacteriological good deed where none is required, we should be far less likely to spread harm of a kind that it may soon prove impossible to control."

This is from an editorial dealing with the problem of antibiotic-resistant bacteria, a problem which is now reaching quite frightening proportions, especially for hospital authorities who have to deal with the infections arising therefrom. The same editorial observes: "*These infections in hospitals are not only a cause of ill health, lost time, and wasted money, but also a source from which a veritable epidemic of staphylococcal infections may spread to the general public.*"

It is obvious that "killing bugs" is not a satisfactory answer to the problems of disease; by disturbing the balance of Nature, increasingly difficult problems may be created in what is fast becoming an endless chain. What is even more alarming is the fact that by the time it is realized that the remedies produce as many problems as they solve, a vested interest has grown around their production.

It is fair to reflect on the far cry from the 'miracle" drug to the present warnings about "spreading infections to the general public," and "causing harm of a kind that it may soon prove impossible to control."—(*Health For All*, August 1956).

Dangers of Aspirin

Warning against heavy use of aspirin during the warm months of the year, was voiced by Dr. G. I. Watson, at the British Medical Association Conference in Brighton recently. It was stressed that heavy doses of aspirin for headache or high temperature may lead to poliomyelitis and in paralytic form.

Danger from aspirin is not confined to polio according to this doctor's report to the B.M.A. It is extended to other virus diseases, natural resistance to which is lessened by taking aspirin.—(*Good Health*, London).

DOGS ARE SO DANGEROUS

GILBERT MILLSTEIN

DESPITE the fact that, last year, 5,880 letter-carriers are reported by the U.S. Post Office to have been impeded in the swift completion of their rounds by *dog-bite*, a 49-year-old bachelor, Dennis J. Sullivan, states that he has completed thirty years as a postman without having been "chewed on." He adds that he (*a*) has a married brother in the same profession who (*b*) likes, but fears, dogs ; (*c*) thinks he's been lucky, but (*d*) feels a man—single or married !–never can tell whether he'll be bitten.

The department has just started a campaign to separate the men from the dogs. Among other things, it is now pondering chemical repellents that will make man taste bad to dog, and clothing so reinforced that dog will never get to taste man at all.

Sullivan has conducted his own campaign ever since the morning of March 11, 1926, when a superintendent handed him a bag, told him to be careful, and sent him out into the world. As such, he may be thought of as an expert, his opinion valued.

Sullivan is five feet six inches tall, weighs 155 pounds, toes out, swings his shoulders from side to side, and delivers mail to 400 private houses containing 800 families and approximately 300 dogs.

Many years ago, on Throgs Neck Boulevard at two o'clock in the afternoon, three reasonable-size animals jumped him and Sullivan responded with the mail-man's classic defence—his bag.

"I just stayed in the middle," he said, repeating what every letter-carrier has had to do at one time or another, and swung the bag around. Somebody called them off quick. It felt like hours."

The best day of the week for Sullivan is Thursday. Then, the bag is his shield and buckler, and his sword is the newest issue of the weekly magazines.

"It's better'n the first of the month," he pointed out. "Bills don't do much good. Too light."

He also uses psychology, which is available at all times.

"I have no more confidence in dogs than I had thirty years ago," Sullivan said. "I'm still afraid of 'em. They always seem to come after the mailman. I don't know whether it's the uniform, the bag, or what.

"I try to make friends with *all* dogs. I try to make 'em believe I'm not afraid, bluff a little bit. I walk right up to 'em; when they see I've got a big fistful of mail they mostly think I'm going to whack 'em with it. And they turn around and go away."

He thought about that for a moment. "Most of the time," he added. "First, though, I whistle at 'em and say, 'Here, pal.'

"A friendly dog," he went on, "wags his tail, lays his ears back, gives a little bark once in a while, and won't try to get

behind you for an attack. *And* he's small.

"A vicious dog growls low in his throat. He comes around with a sneer on his face. *And* he's big *and* he tries to get behind you.

"If I think a dog's friendly, I'll put my hand down and try to pet him. I've always been good at grabbing it back.

"I see a strange dog on my route, my blood-pressure goes up, I begin to sweat a little. It doesn't do to show the dog that, I don't drink and I don't smoke —may be that's why dogs don't bother me too much."

He smiled faintly. "I never give 'em anything. Doesn't do to pamper dogs."

He shook his head mournfully. "I figure it's the owner's fault, not the dog's. Man has a vicious dog, I tell him to keep him locked up the time I'm delivering or put a mailbox on the fence.

"If this doesn't work, I take the mail back to the superintendent. *He* calls 'em up and tells 'em to keep the dog in, I'll bring the mail back the next day or they can come down and call for it themselves.

"I like the way people 'll tell you the dog won't bite. Never bit anybody *yet*, they say, and there I am trying to get him off with the bag. It's better working with an empty bag. You can swing it down quicker."

His impressions were checked at once with Miss Blanche Saunders, a slender, grey-haired lady, also of 49, who *has* been bitten by dogs (three times so you could notice it), but who is nevertheless the U.S.A.'s best-known teacher of obedience-training for dogs, to say nothing of people-training.

"Don't try to make friends with the dog," she began. "Ignore him. Never hold out the hand for the dog to smell, or you invite trouble. Go about your business as though you owned the place. Most dogs sense the difference between a person who is definite and one who acts uncertain.

"If a dog barks or shows signs of advancing, stand still and in a low but demanding voice, bellow, 'Get out of here!' Don't glare at the dog. Ignore him.

"Carry a rolled up magazine in the mail pouch. Most dogs can be made to turn away by throwing something hard at their feet. Don't say anything when you do it. By calling the dog's bluff, he may retreat.

"An old-timer once told a lad who made deliveries of dog-food, 'if ever a dog tries to attack, take off your hat and place it over your face!'

"The lad reports that it worked every time. The explanation is that even a vicious dog becomes a coward when there is something suspicious about a person's appearance which the dog doesn't understand."

Miss Saunders came to a single ringing conclusion: "There are not as many vicious dogs as people believe," she said, "but there are some awfully stupid owners."—(*From The New York Times Magazine*).

EAT YOUR TROUBLES AWAY

ARE YOU ALWAYS CATCHING COLD?

"How can I keep from catching cold?" is the question a good many persons ask themselves about the time autumn rolls around.

In my work, I stress prevention as the only sensible approach to the problem. Prevention of colds means the prevention of that run-down condition generally agreed to be the principal reason for catching colds.

Chilling, exposure to dampness, sudden changes of atmosphere, exposure in a draught, getting wet feet, and working or playing in crowded rooms with others who have coughs and sniffy noses are only environmental factors contributing to the spreading of colds.

These, however, are often unavoidable in our busy lives and, themselves, do not bring colds. It is your duty to your body to build up a resistance powerful enough to enable you to cope with these every day hazards. *A nutritionally protected body does not catch colds.*

A weak, undernourished body—with soggy, cold feet—exposed to a draught, invites the cold virus to attack a sitting duck. But it was the nutritionally weakened condition that caused the virus to take hold—not the draught or exposure which usually gets blamed. A well-nourished body can, and does, fight off armies of viruses, regardless of the atmosphere.

The person who has one cold right after another, all winter long, is lacking essential substances in his body. The prevalence of colds in autumn and winter directly points to the importance of diet and sunshine.

Your eating changes with the seasons. In the winter the tendency to eat more pastries, and starches, thinking they will keep you warm when temperatures drop. This is a fallacy! Indulge excessively in holiday sweets, heavy dressings, gravies—and you wind up with indigestion, faulty elimination, cell starvation. The weakened, starch-poisoned body is all ready to catch cold.

Contrast this with your summer diet. You cut down the starches and increase your use of proteins as *dhal*, meats, fish, cheese, eggs. And certainly, you eat more fruits and vegetables, with their "fresh from the garden" flavour. In short, your summer diet gives you the proteins, vitamins, and minerals needed to fight off infection.

In recent years, antibiotic drugs have been hailed as miracle workers in controlling colds. Yet vitamin C (ascorbic acid) is one of the best natural nutritional builders of antibodies in your system. (Antibodies are substances produced by the healthy body to render harmless the many infections entering it).

Recent experiments have proved that vitamin C acts as a super antibiotic in the prevention and control of head colds.

Sufficient quantities of Vit. C

must be present in the body to resist infections. After contracting a cold, it is more essential than ever that the daily intake be increased, through supplements, to many times the daily minimum requirement.

"I drink a glass of orange juice daily, and I eat tomatoes all winter long. Does'nt that give me enough vitamin C?" Miss G asked.

Even freshly squeezed orange juice, and home-grown sun-ripened tomatoes, would furnish a bare one-sixth of the vitamin C she needs. In summer she could increase her necessary supply of vitamin C with fresh garden vegetables and fruits. In the winter, though, Miss G would have to make up for the loss of vitamin C through eating more whole citrus fruits and using a reliable vitamin C concentrate.

Even after vitamin C is absorbed in the body, it can be destroyed by smoking and many drugs, such as aspirin. I cannot urge too strongly the taking of vitamin C supplements—especially during the colder months.

From almost the same food sources as vitamin C, there is a new vitamin cold-fighter called vitamin P. This vitamin, found in lemon rind, promises to be our newest weapon in preventing and treating colds.

Vitamin A works with vitamin P in preventing the virus of the common cold from sneaking into the blood-stream *via* weak spots in the mucous membrane lining the nose or throat. Eating plenty of butter, eggs, liver, salmon, cheese and milk products will help to supply vitamin A for the winter diet.

The sunshine of summer, which fortifies our bodies with vitamin D, has to be replaced during the winter with fatty fish, butter, and cheese. Sunflower seeds are a rich source of this vitamin. So are cod and halibut liver oils.

Experiments have shown that the vitamin D stores in the liver can be used up within a week. Therefore, in addition to eating foods rich in this energy and nerve vitamin, it is good insurance to use an all-round "laboratory-fresh" supplement containing adequate amounts of this and other vitamins to safeguard our nutritional needs.

Emotional upsets are quite frequently blamed as the cause of a common cold. It is a weak, undernourished mind and body that cannot overcome emotional upsets.

This is why vitamin B-complex is important in preparing the body to combat the cold virus floating around in the poisonous air of our cities.

I advised Miss G to eat plenty of liver, wheat-germ, yeast, whole grains, millet, honey, skimmed-milk powder to secure her B vitamins from food sources—in addition to a B-complex vitamin supplement.

Cutting out all starches and sugars in favour of high-protein foods is a good rule in the prevention and treatment of colds,

In conclusion: Good nutrition is not a matter of income. Rather, it's a matter of selection. Proper foods actually cost less than any of those that are woefully lacking in nourishment. Many an expensively provisioned table is tragically poor in nutritional values because of poor selection and improper preparation.

Eating proteins, vitamins, and minerals leads you along the highway to good health. But, like the motorist, you have to know where you are going and how you are going to get there. There are too many confusing signs leading you down by paths of deficiencies to disease.

Only with protein can you grow, can your muscles develop, can you manufacture good red blood, can you resist infections, can you have healthy children, and can you keep from growing old while you are still young.

What is the recipe for dynamic living? Proteins, minerals, and vitamins. These are the big three that can regenerate the power of youth.—(*Condensed from the book published by Herbert Jenkins, London*).

THE VALUE OF X-RAYS, ULTRA-VIOLET AND INFRA-RED RADIATIONS IN DENTAL PRACTICE

N. S. BALACHANDRAN,
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X-RAYS are used for discovering diseased conditions in structures within the body including the deep-lying organs, bones and tissues, and also for treating diseases like cancer, Hodgkin's disease, eczema and ringworm, etc. without damaging the healthy tissues surrounding them.

X-rays are of very great use in dentistry, especially in preventive work relating to dental practice; they enable the dentist to ascertain the specific causes of disease of the jaws, without having to speculate or theorise on possibilities. An X-ray examination helps in the extraction of teeth, by ascertaining the position, inclination, and size of roots, whether they are curved, supernumerary or interlocked; also in the detection of abscesses, cysts, granulomas and fractures of the jawbones, and roots left behind after extractions, impacted and unerupted teeth and carious cavities in the interproximal and other situations on teeth which are not ordinarily visible to the naked eye and which are not accessible to instruments. They are very useful in the early detection of pyorrhœa, by revealing the characteristic changes of alveolar bone, when pyorrhœa starts.

The calcification of bones and teeth is greatly helped by Vitamin D which is obtained from the chemically active ultra-violet rays in sunlight and which can also be generated by various types of arc-lamps. The rays coming in contact with our body, induce chemical changes and activate a substance known

as ergosterol present in the fat under our skin, so as to develop vitamin D. Codliver oil, eggs, milk and dairy products are the extraneous sources of this vitamin. Irradiation of foodstuffs by exposing them to ultra-violet rays also produces vitamin D. A deficiency of vitamin D causes rickets in children and osteomalacia in adults.

Treatment with ultra-violet rays may be general, local, or a combination of both and is effective in rickets, surgical tuberculosis, certain types of skin diseases, anæmia and malnutrition. Ultra-violet therapy induces rapid granulation and healing of wounds and fractures. These rays exert a bactericidal action in pyorrhœa. Ultra-violet rays allay pain after tooth extraction and also during the eruption of the wisdom teeth. Some cases of trigeminal neuralgia respond well to ultra-violet radiation as also paradental affections occurring after infectious diseases (influenza, pneumonia, erysipelas etc.) and general diseases (anæmia, diabetes mellitus, diseases of the circulatory system etc.). Considerable improvement in the general health of the patient consequently takes place.

Ultra-violet rays differ from infra-red rays as regards their intensity and wave-lengths. The action of infra-red rays, if emitted in sufficient intensity, is thermal. A mildly warm sensation is felt in the area exposed to the rays followed by an erythema which disappears quickly after the exposure. Infra-red rays stimulate the part exposed to them and bring about a rapid increase in the circulation of blood to the part exposed. This temporary increase in the blood circulation facilitates the removal of waste products due to congestion and thus hastens repair and regeneration. Due to the increase in the number of leucocytes in the generous flow of blood, the resistance to bacterial invasion is also increased preventing the onset of suppuration and consequent spread of the infection. The rays are effective in certain acute and subacute inflammations and bring about the softening and absorption of inflammatory processess ; the rays have excellent analgesic properties and in certain types of neuralgias they are very beneficial by relaxing the muscular spasm on the nerve-endings and reducing thepressure thereon. So it may also be used to relieve the pain after extractions and fillings of teeth and in post-operative treatment. The rays are also used with advantage in the treatment of pyorrhœa.

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'Doctor' is Educator

The title "doctor" means teacher. Whether the doctor likes it or not, or even knows it, the learning process is inherent in the physician-patient relationship. The patient will learn something, be it good or bad, when he consults any physician.—(*Journal of Medical Education*).

PUBLIC LIBRARY

Pleasant Topics from Periodicals

Someone once remarked to Will Rogers that Webster spoke perfect English.

"Shucks !" snorted the cowboy philosopher, in his own inimitable way. "If I wrote my own dictionary, so could I."—*(Donald O'shea).*

* * *

Hapro Marx once told friends that because this is a tough world, he was teaching his young son how to fight.

"But suppose," a friend reminded him, "he comes up against someone bigger than he is, who also has been taught to fight ?"

Hapro shrugged : "I'm teaching him how to run, too !"—*(Leonard Lyons).*

* * *

Two drunkards were driving furiously late at night along a road side by side with a main line railway track. Suddenly a steam train, dark except for the locomotive, flashed by them, going in the opposite direction.

"Say," said one of the men in the car, "did you see that little town we just went through ?"

"Yes," replied his companion.

"You know something ? I think that first house on fire."—*(Chatsworth Chatter).*

* * *

The presence of physician is a great comfort. His role is to cure sometimes, to relieve often, and to comfort always.—*(Anon).*

* * *

The well-dressed but despondent old gentleman emerged from his club with bowed head and climbed into his limousine.

"Where to, Sir?" asked his chauffeur.

"Drive off a cliff, James," was the reply. "I'm committing suicide !"—*(Joker, Copenhagen).*

* * *

In a remote North Carolina community a country editor called at the home of the country's oldest resident, to interview him on the occasion of his 102nd birthday.

He asked the usual question : "To what do you attribute your great age ?"

"It's very simple," said the old man, "I've been taking vitamin pills since I was 99."—*(Gastonia Gazette).*

* * *

A young man, burstingly business-like, entered a pets shop and began to browse around, until the clerk, an attractive young lady, came up and asked him if she could be of service.

"Miss," said the young man, "I have a client in serious need of companionship. I've decided that a pet would be just the thing."

"Indeed it would," said the girl, "would you tell me a little about the gentleman so I may know wdat to suggest ?"

"He's in his late sixties, a fine gentleman, tremendously wealthy, but lonely and in declining health."

"I think," said the girl after a brief consideration, "I have just the thing for your client."

"Good," said the man, pleased ; "what sort of pet would you recommend ?"

Said the girl : "*Me* !"
—*(Spotlight, S. Af ica).*

* * *

The young bride had not come out very well in her first encounter with the cookery book and the gas stove.

She ran to the telephone and rang up her mother.

"Mother," she sobbed, "the cookery book says, 'Bring to the boil on a brisk fire, stirring for two minutes, then beat it for ten minutes,' and when I came back it was burned to a cinder."—*(Chatsworth Chatter).*

* * *

A little boy was watching his mother comb her hair, and asked, "Mummy, is that curls on your head ?"

She answered, "No, darling, these are waves."

Then he looked at his bald-headed dad sitting in the living room and said, "Well what's on daddy's head—a beach ?"
(Penrose Coed).

* * *

The relatives were all gathered in the lawyer's office, eagerly waiting for him to read Uncle Jasper's will, He read : "Being of sound mind, I have spent all my money."—
(Sidelines, U.S.A.).

* * *

Little Johnny, aged seven, had been taken to the Zoo. He stood before the cage of the spotted leopard for a few minutes staring intently. Then, turning to his mother, he asked, "Say, Mom, is that the dotted lion everyone has to sign on ?"—
(Femina, S. Africa).

* * *

Noting a sharp increase in mid-week absenteeism, a factory manager put up this notice in the canteen :

"Anyone desiring to attend the funeral of a relative must inform the Personnel Superintendent before 10 a.m. on the day of match."
—*(Voo Doo, U.S.A.).*

* * *

"Might this pen, by any chance, be the one with which King John signed the Magna Carta ?" asked the sarcastic customer.

"Inquiries on the right," replied the Post Office girl.—*(Daily Telegraph, London).*

* * *

Wife : "Here's a scientist trying to prove that worms think."

Husband : "I think........."

Wife : "Yours may be an exceptional case, darling."—*(Capper's Weekly, USA).*

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